#### Message

From: Strynar, Mark [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=5A9910D5B38E471497BD875FD329A20A-STRYNAR, MARK]

**Sent**: 12/5/2019 1:45:58 PM

**To**: Fuller, Christopher [fuller.christopher@epa.gov]

Subject: FW: ?RE: ?RE: [External] RE: ?Standards
Attachments: ATT00001.txt; Table 3+ detailed sources.xlsx

Chris,

Here are the chemicals we got from Chemours. Unfortunately some do not have a CAS#.

Mark

From: Leung, Lam-Wing H < LAM.H.LEUNG-1@chemours.com>

Sent: Tuesday, December 03, 2019 5:39 PM

To: Culpepper, Linda < linda.culpepper@ncdenr.gov>; Garon, Kevin P < Kevin.Garon@chemours.com>

Cc: Martin, Allen D <Allen.Martin@ncdenr.gov>; Sivertsen, Scott <Sivertsen.Scott@epa.gov>; Strynar, Mark

<Strynar.Mark@epa.gov>; Jannie Shaw-Busby <jls@gel.com>; Risen, Amy J <amy.risen@ncdenr.gov>; Messenger,

Courtney <courtney.messenger@chemours.com> **Subject:** RE: ?RE: ?RE: [External] RE: ?Standards

Hi Linda,

We had shipped selected "Table 3+ standards" in methanol (pH adjusted to ~10) to DEQ (Allen Martin), EPA (Mark Strynar & Scott Sivertsen), GEL lab (Jannie Shaw-Busby), Enthalpy Lab & Professor Ralph Mead (UNC-Wilmington) and they should be delivered either today or tomorrow. The selected standards are only available from Chemours as other standards are now commercially available. We are in the process of purchasing them from the vendors and I encourage others to do so as well and I understand that Mark Strynar had purchased some from them previously. As we have limited quantities of these other standards at the moment, we plan on getting more of these prepared internally if the external vendors cannot supply them and these should be available early next year. Of course, if we receive them from external vendors, we'll be sharing them with you.

I have attached the list of standards with the links to the vendors info for purchase. We have also sent the same sets of standards to our external testing labs (Eurofins Test America and Lancaster Labs) such that they'll be using these standards for calibration and analysis purposes going forward.

Please do let me know if more info is needed.

Lam

Lam Leung, Ph.D.

**Technical Fellow** 

lam.h.leung-1@chemours.com

302-353-5218 o

302-985-1655 m

The Chemours Company

Experimental Station 402/5323

200 Powder Mill Road

Wilmington, DE 19803



From: Culpepper, Linda [mailto:linda.culpepper@ncdenr.gov]

Sent: Tuesday, November 12, 2019 5:26 PM

To: Leung, Lam-Wing H < LAM.H.LEUNG-1@chemours.com>; Garon, Kevin P < Kevin.Garon@chemours.com> Cc: Martin, Allen D < Allen.Martin@ncdenr.gov>; Sivertsen, Scott < Sivertsen.Scott@epa.gov>; Strynar, Mark < Strynar.Mark@epa.gov>; Jannie Shaw-Busby < ils@gel.com>; Risen, Amy J < Amy.Risen@ncdenr.gov>; Messenger,

Courtney < courtney.messenger@chemours.com >

Subject: ?RE: ?RE: [External] RE: ?Standards

External email. Confirm links and attachments before opening.

Kevin,

The Consent Order indicates in paragraph 11.a "... Chemours shall (a) provide DWR with all known analytical test methods and lab standards for all PFAS in all process and non-process wastewater and stormwaters at the Facility...". It is my understanding that Chemours will provide all lab standards, which is not dependent on commercial availability.

#### Linda

Linda Culpepper Director, NC DEQ Division of Water Resources

Email: linda.culpepper@ncdenr.gov

Phone: 919-707-9014

Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.

From: Leung, Lam-Wing H < LAM.H.LEUNG-1@chemours.com>

Sent: Monday, November 11, 2019 11:17 AM

To: Culpepper, Linda <a href="mailto:culpepper@ncdenr.gov">linda <a href="mailto:culpepper.gov">linda <a

Cc: Martin, Allen D <<u>Allen.Martin@ncdenr.gov</u>>; Sivertsen, Scott <<u>Sivertsen.Scott@epa.gov</u>>; Garon, Kevin P <<u>Kevin.Garon@chemours.com</u>>; Strynar, Mark <<u>Strynar.Mark@epa.gov</u>>; Jannie Shaw-Busby <<u>ils@gel.com</u>>; Risen, Amy J <<u>Amy.Risen@ncdenr.gov</u>>; Messenger, Courtney <<u>courtney.messenger@chemours.com</u>>

Subject: RE: ?RE: [External] RE: ?Standards

External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to report spam@nc.gov.

Hi Linda,

We plan on shipping Table 3+ standards in methanol solution (pH adjusted to 8-10) sometime next week to EPA (Scott Sivertsen & Mark Strynar), DEQ (Martin Allen) as well as GEL Lab (Jannie Shaw-Busby). However, given that some of these standards are now available commercially, we'll only be providing the ones that are not available commercially (see attached Table for the Green ones – total of 12 analytes). These standards will be 10cc each 0.1% (v/v) in methanol (pH adjusted to 8-10) so it'll be a total of 12 individual standard solutions.

Allen, Scott, Mark & Jannie,

Can you please provide me with your shipping info so we'll send these standards to the correct address?

Thanks and Best regards,

Lam

# Lam Leung, Ph.D.

**Technical Fellow** 

lam.h.leung-1@chemours.com

302-353-5218 o

302-985-1655 m

# The Chemours Company

Experimental Station 402/5323 200 Powder Mill Road Wilmington, DE 19803 USA



LinkedIn | Twitter | Chemours.com

From: Culpepper, Linda [mailto:linda.culpepper@ncdenr.gov]

Sent: Sunday, October 20, 2019 2:46 PM

To: Leung, Lam-Wing H < LAM.H.LEUNG-1@chemours.com>; Strynar, Mark < Strynar.Mark@epa.gov>

Cc: Martin, Allen D < Allen Martin@ncdenr.gov>; Sivertsen, Scott < Sivertsen. Scott@epa.gov>; Garon, Kevin P

<Kevin.Garon@chemours.com>

Subject: ?RE: [External] RE: ?Standards

External email. Confirm links and attachments before opening.

Thank you, Lam. Including Mark, as he shared that he was reviewing your data.

#### Linda

Linda Culpepper

Director, NC DEQ Division of Water Resources

Email: linda.culpepper@ncdenr.gov

Phone: 919-707-9014

Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.

From: Leung, Lam-Wing H < LAM.H.LEUNG-1@chemours.com>

**Sent:** Friday, October 18, 2019 1:05 PM

To: Culpepper, Linda < linda.culpepper@ncdenr.gov>

Cc: Martin, Allen D < Allen Martin@ncdenr.gov >; Sivertsen, Scott < Sivertsen. Scott@epa.gov >; Garon, Kevin P

< <u>Kevin.Garon@chemours.com</u>> **Subject:** [External] RE: ?Standards

External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to report.spam@nc.gov

Hi Linda,

I sent the same email to Scott and I apologize for not copying you on this:

Thank you for your email and going forward, we'll provide both EPA & DEQ standards stored in methanol (pH adjusted to ~8). However, please take the following considerations:

- 1. pH of the methanol will be adjusted to  $^{8-9}$  to minimize/avoid any possible formation of the corresponding esters.
- 2. Note that due to the relative volatile nature of methanol, care must be taken when working with these standards to avoid any loss of the sample.

We will certainly welcome your suggestion for other solvent to use instead of methanol. Please let us know.

Very best Regards, Lam

# Lam Leung, Ph.D.

**Technical Fellow** 

lam.h.leung-1@chemours.com

302-353-5218 o

302-985-1655 m

# **The Chemours Company**

Experimental Station 402/5323 200 Powder Mill Road Wilmington, DE 19803 USA





LinkedIn | Twitter | Chemours.com

From: Culpepper, Linda [mailto:linda.culpepper@ncdenr.gov]

Sent: Tuesday, October 15, 2019 10:55 PM

To: Garon, Kevin P < Kevin.Garon@chemours.com>

Cc: Martin, Allen D <a href="mailto:Allen.Martin@ncdenr.gov">Allen.Martin@ncdenr.gov</a>; Leung, Lam-Wing H <a href="mailto:LAM.H.LEUNG-1@chemours.com">LAM.H.LEUNG-1@chemours.com</a>; Sivertsen,

Scott <Sivertsen.Scott@epa.gov>

Subject: ?Standards

External email. Confirm links and attachments before opening.

Kevin,

As stated in my letter of August 14, "Chemours must use a solvent based system" when providing lab standards for DEQ and EPA use.

We understand your concerns regarding stabilization. We are open to continuing our dialogue on that issue and reviewing any additional information you wish to submit. However, at this time, Chemours is directed to provide standards in a solvent.

#### Linda

Linda Culpepper

Director, NC DEQ Division of Water Resources

Email: linda.culpepper@ncdenr.gov

Phone: 919-707-9014

Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.

From: Garon, Kevin P [mailto:Kevin.Garon@chemours.com]

Sent: Friday, October 11, 2019 10:50 AM

To: Martin, Allen D <a href="martin@ncdenr.gov">Allen.Martin@ncdenr.gov</a>; Leung, Lam-Wing H <a href="mailto:LAM.H.LEUNG-1@chemours.com">LAM.H.LEUNG-1@chemours.com</a>; Sivertsen,

Scott <<u>Sivertsen.Scott@epa.gov</u>> **Subject:** [External] Standards

External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to report spam@nc.gov

Hello Allen and Scott,

In my last meeting a few weeks back with Ms. Linda Culpepper, she indicated that she was still expecting Chemours to prepare and provide standards in a solvent. I believe Lam responded to both of you gentlemen and discussed on a teleconference our concern with making standards in a solvent due to the possibility/probability of some of the compounds changing due to esterification (and I have just exhausted my knowledge of chemistry so forgive me if I am not being clear).

What are your thoughts on this? We are a bit stumped on how to proceed. Lam is still working on the stabilization study to indicate the stability of our standards in water. I just am not sure what or if we need to be doing something as Ms. Culpepper has indicated to me that the request to prepare standards in a solvent still stands.

Thanks, Kevin

<="" style="">

This communication is for use by the intended recipient and contains information that may be privileged, confidential or copyrighted under applicable law. If you are not the intended recipient, you are hereby formally notified that any use, copying or distribution of this e-mail, in whole or in part, is strictly prohibited. Please notify the sender by return e-mail and delete this e-mail from your system. Unless explicitly and conspicuously designated as "E-Contract Intended", this e-mail does not constitute a contract offer, a contract amendment, or an acceptance of a contract offer. This e-mail does not constitute a consent to the use of sender's contact information for direct marketing purposes or for transfers of data to third parties.

https://www.chemours.com/Chemours Home/en US/email disclaimer.html

<="" style="">

This communication is for use by the intended recipient and contains information that may be privileged, confidential or copyrighted under applicable law. If you are not the intended recipient, you are hereby formally notified that any use, copying or distribution of this e-mail, in whole or in part, is strictly prohibited. Please notify the sender by return e-mail and delete this e-mail from your system. Unless explicitly and conspicuously designated as "E-Contract Intended", this e-mail does not constitute a contract offer, a contract amendment, or an acceptance of a contract offer. This e-mail does not constitute a consent to the use of sender's contact information for direct marketing purposes or for transfers of data to third parties.

https://www.chemours.com/Chemours Home/en US/email disclaimer.html

### <=""> style="">

This communication is for use by the intended recipient and contains information that may be privileged, confidential or copyrighted under applicable law. If you are not the intended recipient, you are hereby formally notified that any use, copying or distribution of this e-mail, in whole or in part, is strictly prohibited. Please notify the sender by return e-mail and delete this e-mail from your system. Unless explicitly and conspicuously designated as "E-Contract Intended", this e-mail does not constitute a contract offer, a contract amendment, or an acceptance of a contract offer. This e-mail does not constitute a consent to the use of sender's contact information for direct marketing purposes or for transfers of data to third parties.

https://www.chemours.com/Chemours Home/en US/email disclaimer.html

### <=""> style="">

This communication is for use by the intended recipient and contains information that may be privileged, confidential or copyrighted under applicable law. If you are not the intended recipient, you are hereby formally notified that any use, copying or distribution of this e-mail, in whole or in part, is strictly prohibited. Please notify the sender by return e-mail and delete this e-mail from your system. Unless explicitly and conspicuously designated as "E-Contract Intended", this e-mail does not constitute a contract offer, a contract amendment, or an acceptance of a contract offer. This e-mail does not constitute a consent to the use of sender's contact information for direct marketing purposes or for transfers of data to third parties.

https://www.chemours.com/Chemours Home/en US/email disclaimer.html